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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

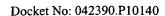
1. (previously amended) An apparatus comprising:

a cache management logistics to control a transfer of a trace;

a first cache coupled to the cache management logistics to evict the trace based on a replacement mechanism; and

a second cache coupled to the cache management logistics to receive the evicted trace based on a first number of accesses to the trace.

- 2. (currently amended) The apparatus of claim 1 wherein the trace has a usage counter, the usage counter being used to count the <u>first</u> number of accesses to the trace.
- 3. (currently amended) The apparatus of claim 2 further comprising a comparator to compare a first threshold value to the <u>first</u> number of accesses to the trace, the first threshold value being a first fixed number or a first dynamically adjusted number.
- 4. (currently amended) The apparatus of claim 3 wherein the trace is transferred from the first cache to the second cache when the first threshold value is less than the <u>first</u> number of accesses to the trace.
- 5. (currently amended) The apparatus of claim 3 wherein the trace is discarded from the first cache when the first threshold value is more than or equal to the <u>first</u> number of accesses to the trace.
- 6. (original) The apparatus of claim 4 further comprising a level 2 (L2) cache to receive the trace, the trace being transferred to the first or second cache for execution.





- 7. (original) The apparatus of claim 6 wherein trace is transferred from the second cache to the L2 cache when a second threshold value is less than a second number of accesses to the trace, the second threshold value being fixed or dynamically adjusted.
- 8. (previously amended) The apparatus of claim 4 wherein the trace is discarded from the second cache when a second threshold value is more than a second number of accesses to the trace, the second threshold value being a fixed number or a dynamically adjusted number.
- 9. (original) The apparatus of claim 8 wherein the second number of accesses to the trace is a number of accesses to the trace counting from a time the trace first enters the first cache.
- 10. (original) The apparatus of claim 1 wherein the replacement mechanism is a Least Recently Used (LRU) mechanism.
- 11. (previously amended) A method comprising:
 controlling a transfer of a trace;
 evicting the trace based on a replacement mechanism using a first cache; and
 receiving the evicted trace based on a first number of accesses to the trace using a second
 cache.
- 12. (original) The method of claim 11 further comprising counting the first number of accesses to the trace.
- 13. (currently amended) The method of claim 12 further comprising comparing a first threshold value to the <u>first</u> number of accesses to the trace, the first threshold value being a first fixed number or a first dynamically adjusted number.
- 14. (currently amended) The method of claim 13 further comprising transferring the trace from the first cache to the second cache when the first threshold value is less than the <u>first</u> number of accesses to the trace.

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- 15. (currently amended) The method of claim 13 further comprising discarding the trace from the first cache when the first threshold value is more than or equal to the <u>first</u> number of accesses to the trace.
- 16. (original) The method of claim 14 further comprising receiving the trace by the second level (L2) cache, the trace being transferred to the first or second cache for execution.
- 17. (original) The method of claim 16 further comprising transferring the trace to the L2 cache when a second threshold value is less than a second number of accesses to the trace, the second threshold value being fixed or dynamically adjusted.
- 18. (previously amended) The method of claim 14 further comprising discarding the trace when a second threshold value is more than a second number of accesses to the trace, the second threshold value being a fixed number or a dynamically adjusted number.
- 19. (original) The method of claim 18 wherein the second number of accesses to the trace is a number of accesses to the trace counting from a time the trace first enters the first cache.
- 20. (original) The method of claim 11 wherein the replacement mechanism is a Least Recently Used (LRU) mechanism.
 - 21. (previously amended) A system comprising:

an execution unit; and

a cache unit couple to the execution unit to provide the execution unit a trace, the cache unit comprising:

a cache management logistics to control a transfer of the trace;

a first cache coupled to the cache management logistics to evict the evicted trace based on a replacement mechanism; and

a second cache coupled to the cache management logistics to receive the trace based on a first number of accesses to the trace.

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- 22. (currently amended) The system of claim 21 wherein the trace has a usage counter, the usage counter being used to count the <u>first</u> number of accesses to the trace.
- 23. (currently amended) The system of claim 22 further comprising a comparator to compare a first threshold value to the <u>first</u> number of accesses to the trace, the first threshold value being a first fixed number or a first dynamically adjusted number.
- 24. (currently amended) The system of claim 23 wherein the trace is transferred from the first cache to the second cache when the first threshold value is less than the <u>first</u> number of accesses to the trace.
- 25. (currently amended) The system of claim 23 wherein the trace is discarded from the first cache when the first threshold value is more than or equal to the <u>first</u> number of accesses to the trace.
- 26. (original) The system of claim 24 further comprising a level 2 (L2) cache to receive the trace, the trace being transferred to the first or second cache for execution.
- 27. (original) The system of claim 26 wherein trace is transferred from the second cache to the L2 cache when a second threshold value is less than a second number of accesses to the trace, the second threshold value being fixed or dynamically adjusted.
- 28. (previously amended) The system of claim 24 wherein the trace is discarded from the second cache when a second threshold value is more than a second number of accesses to the trace, the second threshold value being a fixed number or a dynamically adjusted number.
- 29. (original) The system of claim 28 wherein the second number of accesses to the trace is a number of accesses to the trace counting from a time the trace first enters the first cache.

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30. (original) The system of claim 21 wherein the replacement mechanism is a Least Recently Used (LRU) mechanism.